DOCUMENT RESUME

ED 270 010 HE 019 322

TITLE Computer Careers Losing Appeal. 1985 Freshman Survey Results, Cooperative Institutional Research Program.

INSTITUTION American Council on Education, Washington, D.C.; California Univ., Los Angeles. Graduate School of Education

PUB DATE [85]

NOTE 6p.

PUB TYPE Reports - Research/Technical (143) -- Statistical Data (110)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS *Academic Aspiration; *College Freshmen; Family Income; Grades (Scholastic); Higher Education; *Majors (Students); National Norms; National Surveys; *Occupational Aspiration; *Political Attitudes; *Student Attitudes

IDENTIFIERS *Cooperative Institutional Research Program

ABSTRACT

Results of the 1985 Cooperative Institutional Research Program survey of entering college freshmen are presented. Of the 279,985 responses, 192,435 questionnaires from 365 two- and four-year institutions were used to compute the 1985 national norms. Findings indicate that the proportion of new freshmen planning to major in computer science and pursue computing careers dropped 50% in 2 years. Only 4.4% of fall 1985 freshmen aspired to careers as computer programmers or computer analysts, compared to 6.1% in 1984 and 8.8% in 1983. Significant declines in student interest in engineering careers and nursing and allied health fields also were found. Careers showing the strongest gains in fall 1985 were business and teaching. The proportion of entering students aspiring to business careers increased to an all-time high of 23.9%. For the third straight year, freshman interest in elementary and secondary school teaching rose slightly (from 5.5% in 1984 to 6.2% in 1985). The freshmen strongly opposed increased defense spending, and 54.2% believed that nuclear disarmament is attainable. Student political positions and views on the benefits of attending college, are also summarized, along with grade trends and parental income levels. (SW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED270010

COOPERATIVE INSTITUTIONAL RESEARCH PROGRAM

American Council on Education/University of California, Los Angeles

1985 Freshman Survey Results

COMPUTER CAREERS LOSING APPEAL

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

✓ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

UCLA, H.E. Research Institute

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

HE 01 3 2 2

COOPERATIVE INSTITUTIONAL RESEARCH PROGRAM

American Council on Education/University of California, Los Angeles

1985 FRESHMAN SURVEY RESULTS

COMPUTER CAREERS LOSING APPEAL

The proportion of new college freshmen planning to major in computer science and pursuing computing careers has dropped by 50 percent in just two years, according to the 20th annual survey of entering freshmen conducted jointly by UCLA and the American Council on Education. Only 4.4 percent of the fall 1985 freshmen aspired to careers as computer programmers or computer analysts, compared to 6.1 percent in 1984 and 8.8 percent in 1983. At the same time, the proportion of freshmen planning to major in computer science dropped to 2.3 percent (compared to 3.4 percent in 1984 and 4.5 percent in 1983) and the percentage planning to major in data processing or computer programming dropped to 2.1 percent (down from 2.4 in 1984 and 4.0 in 1982).

"These trends are all the more remarkable," says UCLA Professor Alexander W. Astin, director of the study, "when you consider that computer use and instruction in secondary schools has continued to grow rapidly during the past two years. As students have become more familiar with this technolog, they are less inclined to pursue it as a major or a career and are more inclined to view it as a tool for use in other fields. Additionally, many students may be misinterpreting the recent, well-publicized troubles in the computer industry, assuming that difficulties in the computer industry affect job opportunities for computer specialists. However, virtually all labor market projections forecast a very strong job market for computer programmers and systemsanalysts."

The sharp decline in student interest in computer careers has been accompanied by a significant decline in student interest in engineering careers during the same period. The proportion of entering students planning to pursue engineering careers dropped to 10.0 percent in 1985, down from 10.4 percent last year and the peak of 12.0 percent in 1982. "Taken together," says Dr. Astin, "this decline in student interest in technological careeers stands in stark contrast to the growing national concern for increasing technological training in our schools and colloges and developing the technological capacity of the American labor force."

Technology fields were not the only occupations that experienced declining student interest in 1985. Nursing and allied health fields also showed significant declines between 1984 and 1985. The proportion of students planning careers in nursing dropped from 4.0 last year to 3.3 percent this fall, the lowest point in 15 years. Student interest in allied health careers (medical technician, physical therapist, etc.) fell from 3.4 percent in 1984 to only 3.0 percent in fall 1985, an all-time low in the history of the freshman survey.

Careers showing the strongest gains in fall 1985 were business and teaching. The proportion of entering students aspiring to business careers, a field in which student interest has been rising steadily since the 1970s, increased to an all-time high of 23.9 percent, up from 22.2 percent in 1984 and more than twice the proportion recorded in the fall 1972 survey (10.5 percent). For the third straight year, freshman interest in elementary and secondary school teaching rose slightly (from 5.5 percent in 1984 to 6.2 percent in 1985). Although this represents a significant increase over the low point of 4.7 percent recorded in the 1982 survey, the current figure is still far below the level of the late 1960s when better than 20 percent of the entering freshmen (and over one-third of all freshmen women, compared to less than 10 percent in 1985) planned to pursue teaching careers. "While these trends look promising," says Dr. Astin, "we still have a long way to go before our colleges and universities produce enough teachers to meet the nation's current and future needs."

This year's freshmen strongly oppose increased defense spending. Nearly three-fourths of the students (73.2 percent, up from 67.5 percent in 1984 and 61.2 percent in 1982) oppose increased defense spending, and two-thirds (66.0 percent) agree that "the federal government is not doing enough to promote disarmament." However, responding to a new question asked for the first time on the 1985 survey, a slight majority of the freshmen (54.2 percent) believe that "nuclear disarmament is attainable."

On other attitudinal questions, student responses revealed a mixture of liberal and conservative positions. On the liberal side, support for busing as a means towards racial integration in the schools reached an all-time high of 54.4 percent in 1985, up from 53.6 percent last year and only 37.0 percent in 1976. Support for the proposition that "wealthy people should pay a larger share of taxes than they do now" increased from 69.7 percent in 1984 to 73.3 percent in 1985. Similarly, agreement with the statement that "a couple should live together for some time before deciding to get married" rose to 47.4 percent in 1985, up from 45.1 percent last year and 42.7 percent in 1981. And despite the massive publicity during the past year about the threat of AIDS, student support for the proposition that "it is important to have laws prohibiting homosexual relationships" has remained virtually unchanged over the past three years (47.9 percent in 1985, compared to 47.8 in 1984 and 47.9 in 1983). *(Continued on page 2)*

HE 019322

On the conservative side, support for the legalization of marijuana continued its eight year decline, falling to 21.8 percent in 1985, from 22.9 percent in 1984 (and the peak of 52.9 percent in 1977). And while a substantial majority of students continue to feel that the federal government is not doing enough to promote energy conservation, freshman support for this position hit an all-time low in 1985 (71.7 percent, compared to 72.8 in 1984 and 83.0 in 1980).

Consistent with the record student interest in business careers, more students than ever before say that "to be able to make more money" is a "very important" reason for attending college (69.7 percent in 1985, compared to 67.8 percent last fall and only 49.9 percent in 1971). A record number of this year's freshmen also indicated that attending college was closely linked to their hopes "to get a better job" (83.1 percent in 1985, up from 75.7 percent in 1984 and 73.8 percent in 1971). Similarly, better than two-thirds of all 1985 freshmen (71.8 percent, compared with only 55.8 percent in 1973) agree that "the chief benefit of a college education is that it increases one's earning power." However, for the first time in 15 years, student endorsement of "being very well-off financially" as an "essential" or "very important" life goal failed to increase in fall 1985 (70.9 percent, compared to 71.2 percent in 1984, and 39.1 percent in 1970).

The 1985 freshman survey suggests that "grade inflation" may be returning to the nation's high schools. Between 1978 and 1984 the proportion of entering freshmen reporting A or A- high school grade averages declined slightly (from 23.3 percent to 20.0 percent), reversing a 10-year trend which had seen a dramatic increase in the proportion of entering students reporting A/A- grades between 1969 and 1978 (from 12.5 percent to 23.3 percent). The proportion of entering students reporting C averages declined during this same 10-year period, from 32.5 percent in 1969 to 17.6 percent in 1978. However, between 1984 and 1985, the percentage of freshmen reporting A/A- averages once again increased (from 20.0 percent to 20.7 percent), while the proportion reporting C averages declined (from 21.3 percent to 20.9 percent). Yet compared to previous freshman classes, this year's entering students feel that they worked harder for their grades: only 50.1 percent agree that "grading in the high schools has become too easy," compared to 54.1 percent last year and 63.7 percent in fall 1978, the peak year of grade inflation.

Parental income levels, as reported by the 1985 freshmen, showed a dramatic increase over 1984. Income in the $50,000-$99,999 range nearly doubled (from 13.7 percent of the entering freshmen in fall 1984 to 26.8 percent of 1985 freshmen). Similarly, the proportion of entering students reporting family incomes over $100,000 also increased by 50 percent between 1984 and 1985 (from 4.0 to 6.0 percent). At the same time there was a significant drop in the proportion of students reporting parental incomes below $15,000 (from 20.7 percent in fall 1984 to 15.9 percent this year), and in the $15,000-$29,999 range (from 29.5 percent last year to 24.5 percent in 1985). "Considering that there has been relatively little inflation during the past year," says Dr. Astin, "these data may indicate that the poorest students are finding it increasingly difficult to attend college." The lowest parental income levels were reported by students attending the nation's predominantly black colleges (52.9 percent below $15,000 and only 9.8 percent above $50,000), while the highest family incomes were reported by students enrolled at selective private universities (5.0 percent below $15,000 and 54.9 percent above $50,000).

The 1985 national norms are based on questionnaires completed by 279,985 new freshmen entering a national sample of 546 two-year and four-year colleges and universities. Of these, 192,435 questionnaires from 365 institutions were used to compute the national norms, which are statistically adjusted to represent the nation's total of approximately 1.66 million full-time freshmen. Over the past 20 years, more than 5 million students at over 1,200 institutions have participated in this annual survey.

Copies of the survey, titled *The American Freshman: National Norms for Fall 1985,* are available for $8.50 (postpaid) from the Higher Education Research Institute at UCLA's Graduate School of Education, 405 Hilgard Ave., Los Angeles, California, 90024.

The Cooperative Institutional Research Program

The Cooperative Institutional Research Program (CIRP) is a national longitudinal study of American higher education. Established in 1966 by the American Council on Education (ACE), the CIRP is now the nation's largest and longest continuing empirical study of American colleges and college students. Since 1966, some five million students, 100,000 faculty, and over 1,200 institutions have participated in CIRP surveys. The annual CIRP survey of entering college freshmen is now administered through UCLA's Higher Education Research Institute, under the continuing sponsorship of the American Council on Education.

PROJECT STAFF

Alexander W. Astin
Professor and Director

Kenneth C. Green
Associate Director

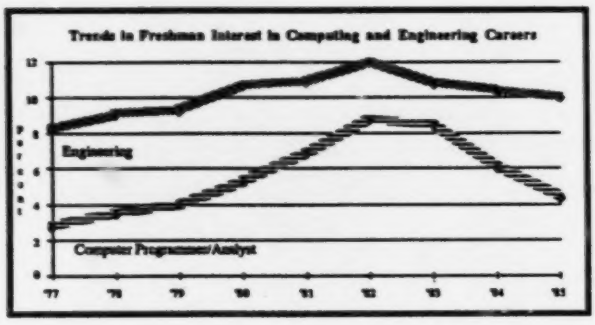
William S. Korn
Principle Programmer

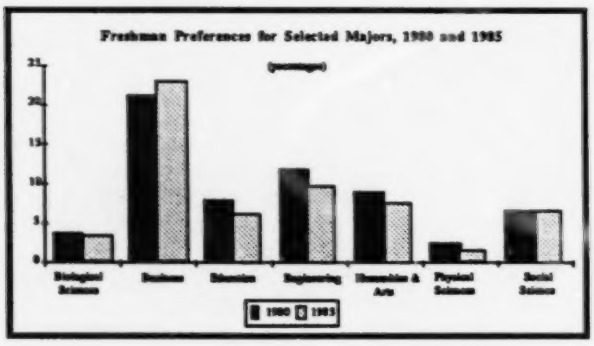
Marilynn Schalit and Laura Birley
Staff Associates

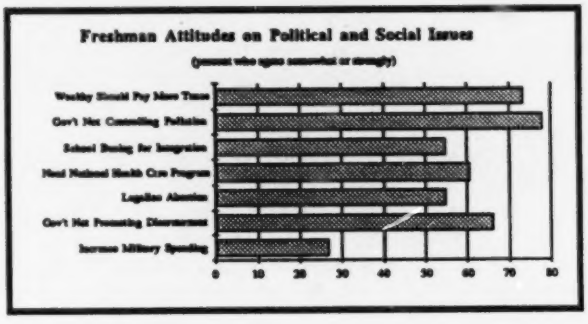
For additional information, please call or write:

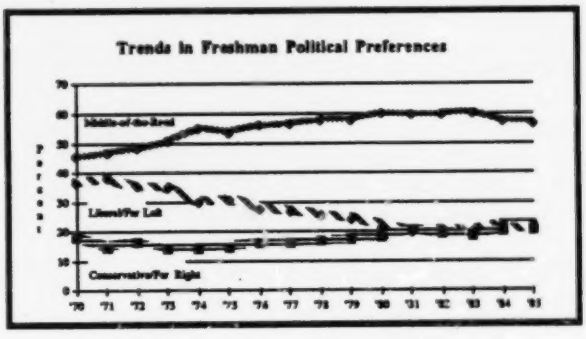
Higher Education Research Institute
Graduate School of Education
University of California, Los Angeles
320 Moore Hall
Los Angeles, CA 90024
(213) 825-1925

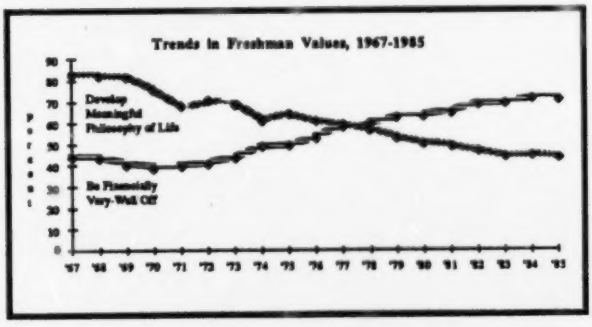
BEST COPY AVAILABLE

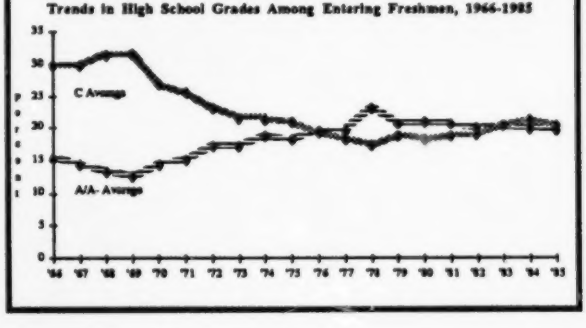












THE 1986 CIRP SURVEYS

During 1986, the Cooperative Institutional Research Program (CIRP) and UCLA's Higher Education Research Institute (HERI) will conduct several survey projects open to campus participants. These projects, described below, include a follow-up study of 1982 and 1984 freshmen and a national survey of two-and four-year college and university faculty, plus the annual CIRP survey of entering freshmen, now in its 21st year.

Annual Freshman Survey

The annual American Council on Education/University of California, Los Angeles survey of entering freshman is the nation's largest and longest continuing study of college students. Each year some 275,000 students at 550 two- and four-year colleges and universities participate in the freshman survey. Administrered during freshman orientation or registration programs, the CIRP freshman survey provides a low-cost, highly effective vehicle for collecting data about entering students. The survey covers an array of demographic, experiential, and attitudinal issues, plus degree aspirations and college major and career plans. Participating institutions receive a campus profile report, plus national normative data. Institutions can also merge their CIRP freshman survey data with other campus data (such as a registrar's file) to create a longitudinal data file to assist institutional research and campus planning efforts.

Follow-Up Survey

Designed specifically for institutions participating in the annual CIRP survey of entering freshmen, the 1986 Student Follow-Up Survey provides a cost effective and efficient vehicle for campuses to conduct longitudinal studies of entering students. The 1986 follow-up will survey 1982 and 1984 freshmen. Participating campuses receive a campus profile report and national normative data, plus a longitudinal data tape that includes both the initial freshman as well as follow-up survey data. The survey focuses on student experiences during their college years, and includes items that measure student satisfaction with key aspects of the college experience. The follow-up questionnaire also includes several attitudinal and value items from the freshman survey, to provide data to measure change over time. The 1986 CIRP/HERI Follow-Up Survey is scheduled for June, 1986.

Faculty Survey

CIRP and HERI are pleased to announce a new, national survey of college faculty, designed specifically for campus use. Drawing on the results of recent studies of the American professoriate as well as HERI's longitudinal studies of college faculty, the 1986 Faculty Survey covers an array of issues of concern to college faculty and campus administrators. In addition to collecting data on faculty demographics, attitudes and values, instructional concerns, and retirement planning, the survey will focus special attention on faculty access to and utilization of technological tools in teaching and professional activities. Participating institutions will receive a campus profile report as well as national normative data. The 1986 HERI faculty survey will be useful for: (a) accreditation and self-study reports; (b) campus planning and policy analysis; (c) developing and enhancing campus programs; and (d) faculty development programs.

For additional information about these programs, please contact the Higher Education Research Institute at UCLA.

UCLA/Higher Education Research Institute.
Graduate School of Education
320 Moore Hall
Los Angeles, CA 90024

Non-Profit Org.
U. S. Postage
PAID
UCLA